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INTEGRATION OF DOMESTIC AND INTERNATIONAL FINANCIAL MARKETS: THE JAPANESE EXPERIENCE

PART I OF A STUDY BY SENA EKEN OF THE INTERNATIONAL MONETARY FUND*

Summary

Japan's May 1984 pledge to liberalize its financial and capital markets was hailed in the United States as a watershed agreement. In reality, this pact signaled Tokyo's intention to continue a process that domestic and external forces had set in motion in the mid-1970s. In the following article, the first of a two-part report, Sena Eken, an economist in the Consultation Practices Division of the International Monetary Fund's Exchange and Trade Relations Department, surveys recent changes in Japanese financial and capital markets and assesses the impact of these changes on the internationalization of the yen and on Japan's role in the international financial system.

Introduction

Japan's financial system played a key role during the 1960s in the capital formation process and the allocation of investment resources, and contributed substantially to the successful performance of the economy. However, the country's ever-increasing importance in the world economy and in

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the international financial system, the substantial structural changes in the domestic economy and the shift in the flow of funds following the oil price increases of 1973-74, and the breakdown of the fixed exchange rate system created an environment with which Japan's financial practices were no longer compatible. In response, major changes in the direction of liberalizing interest rates and financial flows have been implemented since the mid-1970s.

This paper traces the evolution of Japan's financial system during the past decade. Forces affecting the pace and direction of changes are described, and the impact of these changes on the domestic financial system and on Japan's role in the international financial system are discussed. Section I briefly outlines the Japanese financial system during the 1960s. Section II describes the pattern of liberalization of Japan's financial system, first focusing on changes in domestic markets and then on the liberalization of international capital flows. Section III profiles the Japanese financial markets. In Section IV, the impact of the integration of domestic and international financial markets on the internationalization of the yen, on Japan's role as a major financial center, and on the yen exchange rate are analyzed. Section V concludes with a summary and comments on future prospects.

Japanese Financial System During the 1960s

Following World War II, the Japanese economy experienced unprecedented rates of growth, averaging about 10 percent a year during the 1960s. As a result, Japan emerged as the Western world's second largest industrial economy. A high level of investment and the competitiveness of Japanese goods in world markets led to a sharp increase in exports, raising the share of Japan in world trade from 1.4 percent in 1950 to 6.8 percent by 1970. In addition, Japan switched from being a net borrower in international capital markets to being a net lender.

Despite Japan's growing importance in the industrial world and in international trade, its financial system remained highly regulated[1] and cut off from the rest of the world. Features of the system, which had been designed to support the investment-led pattern of growth, included (1) a predominance of indirect financing over direct financing; (2) controls on the quantity and distribution of credit and on interest rates, which were generally below market clearing rates; and (3) a high degree of specialization among financial institutions.

[1]See Hugh Talbot Patrick and Henry Rosovsky, eds., Asia'a New Giant: How the Japanese Economy Works (Washington: The Brookings Institution, 1976); Kazumasa Iwata, "Japanese Financial System and Its Recent Changes," Seminar on Long-Term Economic Cooperation Between Mexico and Japan (unpublished, Japanese Economic Planning Agency, 1982); Yoshio Suzuki, "Changes in Financial Asset Selection and the Development of Financial Markets in Japan," Monetary and Economic Studies (Tokyo), Vol. 1 (October 1983), pp. 29-53; and Eisuke Sakakibara, "The Japanese Financial System in Transition" (unpublished, Japanese Ministry of Finance, n.d.).

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During the 1960s, the corporate sector's financial deficit was continuously expanding. Japanese businesses were not able to generate needed capital from internal sources to finance rapid expansion. Direct financing by the corporate sector was also limited, for various reasons. First, because of historical experiences with securities markets, Japanese investors did not yet perceive bonds and stocks as safe assets. As a result of this attitude and the tax incentives for deposit holding, the high level of household savings was predominantly channeled into the banking system. Second, corporate tax policies and the preference of institutional investors to buy new issues at par rather than at market prices (see the subsection Stock Market, below), by increasing the cost of capital raised through the stock market, encouraged financing through bank loans. Third, corporations benefited from close relationships with banks, which also provided managerial expertise and marketing facilities to Japanese enterprises. Fourth, there were restrictions on foreign issues of securities by Japanese companies and on nonresident acquisitions of Japanese equity. As a result of these factors, the securities market in Japan remained undeveloped, and Japanese firms relied heavily on the banking system -- that is, on indirect financing -- for funds.[2]

Interest rates on the supply of credit to firms were set below equilibrium rates and, as a result, there was usually excess demand for credit from the banking system.[3] In these circumstances, Japanese city banks[4] were heavily dependent on the Bank of Japan for funds to meet the demands of their corporate customers. The Bank of Japan used the volume of lending to the city banks and the call market as major channels to implement monetary policy. The setting of the discount rate at levels below market clearing prices created an excess demand for Bank of Japan money and gave the central bank the power to ration credit. By increasing or cutting back on loans to the city banks, the Bank of Japan was able to affect the level of bank loans both directly, through availability, and indirectly, through cost effects as banks were forced to secure funds in the higher-cost call money market. The Bank of Japan also closely monitored the rates and the allocation of funds in the call market and intervened directly through call market brokers. In conducting its monetary policy, the Bank of Japan supplemented its discount policy by window guidance, which set bank-by-bank quotas on loans to customers during periods of monetary restraint. As a result of these mechanisms, the impact of adjustments in monetary policy fell promptly on the volume of bank loans and, consequently, by squeezing corporate liquidity, on economic activity.

Open market operations were not an important policy tool, mainly because of the absence of a well-developed securities market, particularly for government securities. Until the mid-1960s, the Government pursued a balanced budget policy and issued only short-term bills to finance seasonal deficits.

[2]The small amount of government debt and the low level of consumer credit meant that most funds went to corporations for investment purposes.

[3]See Stephen Bronte, Japanese Finance: Markets and Institutions (London: Euromoney Publications, 1982), p. 4; and Suzuki, op. cit., p. 46.

[4]The banking system in Japan consists of 76 ordinary commercial banks (13 city banks, headquartered in major metropolitan centers, and 63 regional banks, headquartered outside metropolitan areas), 3 long-term credit banks, 7 trust banks, and 74 foreign banks.

Since rates on these bills were fixed at low levels, private holdings were negligible, and these bills were generally purchased by the Bank of Japan. Hence, no secondary market for treasury bills evolved. When the Government began issuing long-term bonds to finance public works in 1965, yields on these bonds were fixed by the Government, and the Government's Trust Fund Bureau and the syndicate of financial institutions underwrote them. Banks were willing to do so on the understanding that the Bank of Japan would purchase the bonds in the course of open market operations.

Services provided by financial institutions were restricted, and there was also a high degree of specialization among banking institutions. City and regional banks had to fund their lending through deposits, the interbank market, and borrowing from the Bank of Japan, and were not allowed to issue negotiable certificates of deposit or debentures. Reflecting the short-term nature of their liabilities, their lending was also short term. Long-term credit banks, on the other hand, were allowed to raise funds by issuing debentures but were prohibited from deposit taking.[5] This more stable funding base enabled these banks to provide fixed rate long-term loans. The Japanese Securities and Exchange Law differentiated between banking and the brokerage business, specifically prohibiting banks from acting as underwriters or dealers in the securities market. These limitations on asset/liability choices of financial institutions and access to financial markets served to enforce interest rate controls by limiting substitution among assets and preventing arbitrage among markets.

These characteristics of the domestic financial system were supported by controls on capital flows into and out of Japan. Virtually all capital transactions were subject to government approval, including foreign acquisition of stocks, foreign borrowing by nonbank residents, foreign bond issues, and long-term trade financing. These restrictions were imposed to prevent foreign takeover of Japanese corporations and to prevent Japanese companies from circumventing credit restraints by borrowing abroad. On the other hand, nonresidents were not permitted to float yen-denominated bonds without authorization. This worked to further retard the development of the domestic securities markets. Furthermore, the ability of Japanese banks to borrow in the Eurodollar market was controlled, initially through restrictions on the rate of interest payable for Eurodollars and later through quantitative limits on amounts that could be borrowed. Short-term capital inflows through banks were also restricted by means of yen conversion limits. Finally, although branches of foreign banks in Japan were permitted to supply funds to the call market, they were not allowed to borrow funds from that market or from the Bank of Japan. These restrictions on capital flows were instrumental in preserving the characteristics of Japan's financial structure at that time.

Pattern of Liberalization

The Japanese economy underwent substantial structural changes in the 1970s, in response to a number of internal and external developments. The

[5]The only other bank permitted to sell debentures was the Bank of Tokyo, one of the city banks, because of its charter as the country's principal foreign exchange bank.

forces for change came largely from the surge in inflation in the early 1970s, the breakdown of the fixed exchange rate system, and the slowing of economic growth following the oil price increases. These forces created a new economic environment that was not compatible with Japan's past financial practices. As a result, the domestic financial system has been transformed from one dependent on bank lending funded largely by deposits with officially controlled interest rates to one with a variety of assets available to both foreign and domestic investors and in which market forces of both domestic and international origin play an increasingly important role. Furthermore, Japan's financial markets have been virtually freed of formal restrictions on capital flows into and out of Japan, although administrative guidelines remain in effect for certain transactions.

Although forces for change were experienced worldwide, straining the financial systems of other countries, the changes in Japan were more dramatic and more extensive than in other countries.[6] For example, as shown in Table 1, the financing needs of the public sector increased and the needs of the private nonfinancial sector declined more dramatically in Japan than in the United States and the Federal Republic of Germany. Furthermore, the proportion of funds raised directly in capital markets by non-financial sectors more than doubled in Japan, whereas changes in the role of capital markets were less significant in the other two countries.

Because of its highly regulated nature, the existing financial system in Japan did not permit spontaneous change. Hence, to some extent, the authorities have been able to control the pace and direction of these changes in the financial system. The process of liberalizing interest rates and financial flows and the consequent evolution of the financial system are described in the following sections.

Financial Reform in Domestic Markets - After the first major oil price increases, potential growth slowed, and the expansion in business investment slowed down significantly. As a result, business demand for funds subsided, and companies were able to generate a large share of needed funds from internal sources, including retained earnings, depreciation, and reserves. The Government's deficit began to rise sharply in fiscal year 1975/76 (April-March) as a result of the sharp drop in revenue owing to the severe recession following the oil price increase. With this shift in funding requirements, the public sector assumed the position of major net borrower (Chart 1). To finance its deficits, large amounts of government bonds were issued within a short period. While the sharp drop in revenue was the immediate cause of the increase in government bond issues, the continuing increase in expenditures in the late 1970s contributed to it. Total amounts of government bonds outstanding increased more than eightfold during fiscal years 1974/75-1981/82, from the equivalent of 7 percent of gross national product (GNP) to 32 percent. This resulted in a rapid growth of Japan's primary and secondary bond markets and gave rise to pressures from the financial community for improvements in the efficiency of these markets.

[6]For a comparison of financial changes in Japan and the United States, see Charles Piggott, "Financial Reform in Japan," Federal Reserve Bank of San Francisco, Economic Review (winter, 1983), pp. 25-46.

TABLE 1. COMPARISON OF FINANCIAL INDICATORS

(In percent)

	1970–71 (Average)			1980–81 (Average)		
	Japan	United States	Fed. Rep. of Germany	Japan	United States	Fed. Rep. of Germany
Gross savings/gross national product	39.15	15.00	27.59	31.70	15.80	21.43
Share of total funds raised by each domestic nonfinancial sector[1]						
Public sector	15.86	26.02	14.42	46.52	28.92	25.74
Private nonfinancial enterprises	66.31	46.23	78.72	35.27	39.25	68.68
Households	17.84	27.76	6.87	18.22	31.83	5.58
Proportion of funds raised directly in capital markets by nonfinancial sectors[1]	17.04	50.35	8.20	39.21	42.82	3.58[2]
Sources of net funds raised by nonfinancial enterprises						
Loans	88.79	47.90	90.98	86.80	63.92	95.02
Bonds	3.82	37.20	3.34	5.32	35.44	1.06[3]
Shares	7.39	14.91	5.68	7.89	0.65[4]	3.93

Sources: Organization for Economic Cooperation and Development, *Financial Statistics*, and *National Accounts* (Paris), various issues; U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* (Washington), various issues; and Federal Republic of Germany, *Statistiches Bundesamt, Vollcswirtschaftliche Gesamtrechnunsen*, Vol. 1: *Konten und Standardtabellen* (Stuttgart, 1981).

[1] Includes public sector, private nonfinancial enterprises, and personal sector.

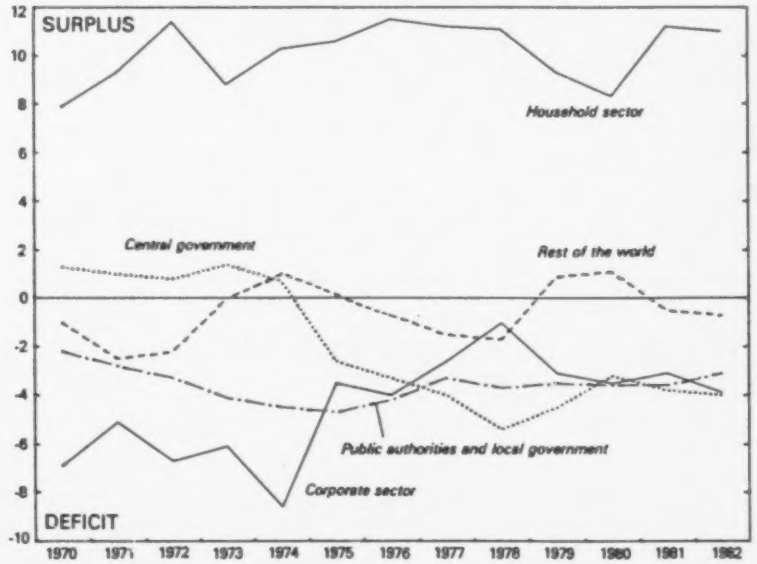
[2] This ratio was unusually low in 1981–82 because of a low level of bond issues. The average for 1978–82 amounted to 9.8 percent.

[3] In 1982, the share of funds raised by bonds amounted to 3.8 percent.

[4] The low average reflects the net repurchases of shares in 1981.

CHART 1. FLOW OF FUNDS: NET FINANCIAL SURPLUS OR DEFICIT BY SECTOR, 1970–82

(In percent of gross national product)



Source: Bank of Japan, *Economic Statistics Monthly* (Tokyo), various issues.

Under institutional arrangements by which long-term government bonds with a maturity of ten years were underwritten by a syndicate consisting of major financial institutions required to purchase and hold for specified periods the bonds they had underwritten, the Government was able to issue large amounts of debt below secondary market yields. In the late 1970s, however, the banks became increasingly reluctant to absorb the large issues of government bonds, for the following reasons. First, the wider availability of instruments (described below) with market-determined interest rates on commercial bank deposits remained insulated from market forces by official regulation. As the amount of government bonds held by banks under the syndicate system increased at a faster rate than their deposits, the share of government bonds in their total assets also rose, resulting in lower profits (Table 2). Second, because of greater interest rate volatility, the risk of capital losses arising from higher interest rates from sales of banks' bond holdings in the secondary market increased. Third, the increased holdings of government bonds lengthened the maturity of commercial banks' assets while their deposit liabilities remained short term, resulting in a growing mismatch of their financial positions.

To increase the attractivness of government bonds to investors, the authorities revised some of the issuing and trading practices.[7] In 1977, the Government began issuing five-year discount bonds. The following year, the Government began issuing bonds with maturities of two to four years through public offerings, which allowed investors to purchase these bonds directly at market rates. This also promoted the development of a secondary market for government bonds. While the financial institutions continued to subscribe to a substantial portion of new government bond issues through the underwriting syndicate system, the share of bonds subscribed by securities houses increased, resulting in larger purchases by corporate and individual investors.[8] This growth and diversification of the government bond market substantially increased investment opportunities and contributed to the widening of the capital market to include broader participation.

By 1979, the commercial banks had ceased net acquisition of bonds and had become more actively involved in selling surplus holdings of government bonds in the secondary market (Table 2). Thus, banks became increasingly reluctant to absorb new issues at rates significantly different from those prevailing in the secondary market. To accommodate new issues of government bonds, the time period required for banks to hold these issues before selling them in the secondary market was reduced from one year to 100 days in April 1981. As a result of these growing linkages between the primary and secondary bond markets, terms of new government bond issues were increasingly set reflecting conditions in the secondary bond markets (Chart 2).

Along with other changes in regulations, a new banking law in 1982 allowed banks, in principle, to purchase, sell, and underwrite bonds. In April

[7]For a summary of bond issuing practices in Japan, see Table 16 in the Appendix. [Contained in Part II of this report.]

[8]The share of banks as syndicate members declined from 72 percent in fiscal year 1974 to about 63 percent in fiscal years 1981 and 1982.

TABLE 2. JAPANESE CENTRAL GOVERNMENT DEBT, 1972–82[1]

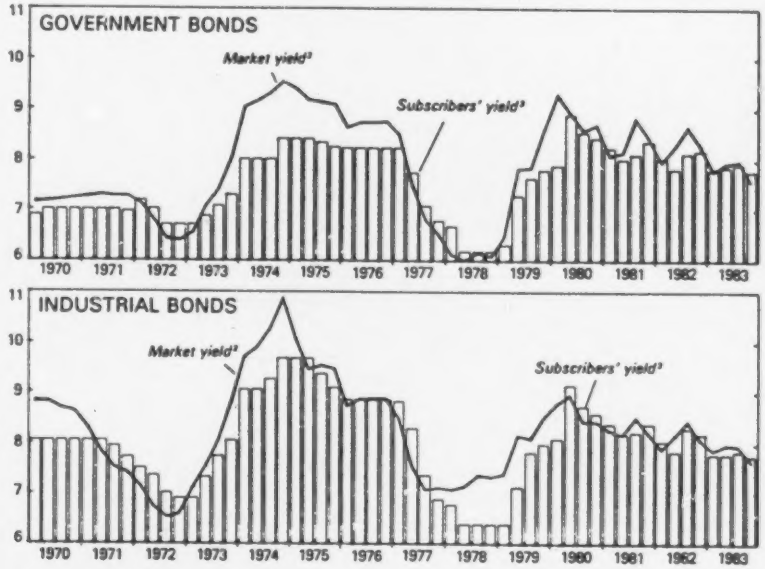
(Amount outstanding; in percent)

	1972	1976	1979	1980	1981	1982
Fraction of total assets						
Bank of Japan	18.3	49.6	52.7	60.0	70.5	88.5
Private banks	1.8	3.9	10.0	9.1	8.7	7.8
Other private financial institutions	0.6	1.0	3.9	5.3	6.1	7.4
Public financial institutions			13.7	10.7	13.1	13.6
Share held by						
Bank of Japan	20.2	36.7	17.9	20.1	18.4	19.8
Financial institutions	22.5	28.0	62.9	53.5	53.4	51.5
Private banks	17.8	22.4	29.5	23.8	19.6	16.2
Other financial institutions	4.7	5.6	10.4	13.1	14.4	16.4
Public financial institutions			23.0	16.7	19.4	18.9

Source: Bank of Japan, *Economic Statistics Annual* (Tokyo), various issues.
[1] Fiscal years ended in March. Most government debt held by the Bank of Japan is short term, and debt held by private and public financial institutions is mostly medium and long term.

CHART 2. YIELDS IN SECURITIES MARKETS, 1970–83[1]

(In percent per annum)



Source: Bank of Japan, *Economic Statistics Monthly* (Tokyo), various issues.
[1] Quarterly averages.
[2] Market yields of securities with the longest remaining maturity.
[3] Bonds with a ten-year maturity.

1983, the banks were allowed to make over-the-counter sales of new-issue long-term government bonds[9] and in October 1983, of new-issue medium-term interest-bearing and discount government bonds. New issues that are not sold to the public during the specified issue period must be held in banks' portfolios for a minimum of 100 days before being traded. In June 1984, the banks were allowed to deal in government bonds in secondary markets. Although these measures were taken partly to facilitate the issuance of government bonds and partly to help resolve the mismatch between the funding ability of certain financial institutions and their share in the underwriting syndicate for government bonds, they constituted significant changes in the traditional division of functions between banks and nonbank financial institutions.

There was also a change in corporate finance after the mid-1970s. As the Japanese economy began to show signs of recovery, the demand for new funds by the private sector started to grow. Corporations increased their resort to direct means of financing, such as issues of straight and convertible bonds.[10] Factors influencing the shift from indirect to direct financing by corporations included (1) the liberalization of bond issues by Japanese corporations in foreign markets; (2) the increased purchases of government bonds by banks, which reduced available bank financing for corporations; and (3) the realization on the part of corporations that they could not rely on banks as a continuous source of cheap financing. The development of the government bond market was also instrumental in the development of the corporate bond market, as the risk-free government securities provided a reference for determining appropriate bond yields. Primary yields on corporate bonds are influenced by the terms on government bonds: coupon rates on bank debentures and rates on corporate bonds are determined by a preset formula based on government bond rates, and issue prices of corporate bonds are decided by the Bond Issue Adjustment Committee, taking into account the secondary market yields for government bonds.[11] Furthermore, the development of secondary markets made investments in corporate bonds more attractive by increasing their marketability and, hence, their liquidity. This change in corporate finance enlarged the supply of marketable securities, although to a lesser extent than government bond issues. The outstanding level of industrial bonds, which amounted to Y4.5 trillion in fiscal year 1974/75, more than doubled by the end of fiscal year 1981/82. However, during the same period, the share of industrial bonds in total bonds outstanding declined from 12.3 percent to 6.6 percent. Corporate bond issues abroad accelerated in 1977, after the Government removed restrictions on small and medium-sized Japanese corporations floating bond issues.

The considerations described above led to a rapid expansion of the capital market and a diversification of financial instruments and influenced

[9]As well as local government and government-guaranteed bonds.

[10]Corporate bond issues in Japan in general require collateral. Along with the relaxation of the rules for issuance of Euro-yen bonds, which do not require collateral, the domestic collateral requirement for corporate bond issuance was relaxed effective April 1, 1984.

[11]The Bond Issue Adjustment Committee is a private entity which reports to the Ministry of Finance and is made up of securities houses and commissioned banks.

developments in the money markets. In the early 1970s, as a concomitant to official control over the credit extension process, the interbank market remained rigidly controlled. The surge in inflation in the early 1970s, together with constraints on the flexibility of nominal interest rates, increased the volatility of real rates. Also, the decline of corporate sector dependence on bank loans after the oil price increases reduced the effectiveness of the Bank of Japan's window guidance in influencing the level of liquidity. Because of these developments, and reflecting the emphasis placed on controlling inflation, the focus of policymakers shifted from control of bank credit to control over the growth of the money stock. Thus, the short-run transmission of monetary policy actions had to rely on affecting the cost of credit, necessitating greater flexibility in short-term interest rates.

After the first oil price increase, the Bank of Japan began to deregulate interest rates in the short-term money markets, initially by increasing the fluctuations in posted call rates.[12] The posted rates in the call market were discontinued in April 1979. Decontrol of the bill discount market was completed following the introduction of one-month and three-month bills with unregulated interest rates in November 1978 and decontrol of interest rates on two-month bills in October 1979. Although "official controls" over both the bill discount and call markets were removed in 1979, the Bank of Japan maintains a close day-to-day surveillance over these markets and intervenes in both markets, more in the former, to smooth out seasonal fluctuations in the flow of funds and to support the changes in the official discount policy.

Interest rates in the Gensaki market[13] during the 1970s were virtually free of official regulation and offered investors higher yields than could be obtained through bank deposits. While the corporate sector remained a net borrower, corporations with surplus funds and seeking investment opportunities at market interest rates turned to the Gensaki market. As corporations shifted their surplus funds from bank deposits to more attractive Gensaki instruments and increasingly rate-conscious households transferred their money to higher-yielding postal savings accounts, funding of city banks deteriorated.[14] To enable the banks to adapt to the changing financial environment, the authorities permitted the issuance of negotiable certificates of deposit in May 1979, despite strong opposition from long-term credit banks and securities houses.[15] Secondary trading in these instruments began in April 1980. The

[12]See Table 17 in the Appendix for a summary of the characteristics of Japanese short-term money markets.

[13]The Gensaki market consists of a conditional purchase of a government or corporate bond for a fixed period with a resale agreement at a specified date.

[14]The postal savings system is a major source of funding for the Government's Fiscal Investment and Loan Program. Postal savings deposits offer interest rates comparable to those on bank deposits plus the opportunity for investors to lock in initial deposit rates for up to ten years while having the option to withdraw after six months. About 30 percent of Japanese personal savings is held in postal savings accounts, compared with less than 20 percent in the early 1970s.

[15]Long-term credit banks saw certificates of deposit as strong competitors to debentures, and securities houses were concerned that the certificates would drain money away from the Gensaki market.

introduction of certificates of deposit has been important in fostering the intermediation function of banks, as they have increased the funding capacity of the banking system. Although the cost of funds in the certificate of deposit market reflects market conditions, there are ceilings on the total amount that can be issued and restrictions on minimum denominations of individual certificates. The high minimum denomination of the certificates, which attracted corporate rather than household funds, was reduced from Y500 million to Y300 million as of January 1984. Limits on the amount of such issues by Japanese and foreign banks have been gradually raised and further increases are planned. The restrictions on nonresident participation in the Gensaki and certificate of deposit markets were lifted in 1979, opening the way for the integration of Japan's short-term financial markets with those abroad.

The removal of restrictions on banks' participation in the Gensaki market in 1979 facilitated the integration of the interbank markets with unregulated markets outside the banking system, enabling greater interest rate arbitrage across markets. As a result, most of the money market rates have moved parallel and much closer to each other since 1979. The remaining differences in the level of interest rates largely reflect tax treatment of earnings on these assets. However, seasonal movements in some money market rates,[16] though small, suggest that some degree of compartmentalization among money markets remains.

Nonfinancial corporations in Japan may borrow short-term funds in money markets only if they have the appropriate securities to sell in the Gensaki market. The banking law of 1982 in principle authorized the introduction of commerical paper; however, in practice, domestic sales of yen-denominated commercial paper have not yet begun. Domestic sales of foreign certificates of deposit, effective April 1, 1984, are likely to lead to the creation of a full-fledged commercial paper market in Japan. The treasury bill market in Japan remains limited. Although outstanding treasury bills increased from about 3 percent of GNP in the early 1970s to over 5 percent of GNP in the past few years, they do not comprise a large proportion of total government debt. At the end of fiscal year 1982, for example, the proportion was less than 8 percent. These bills are generally issued at rates below market levels and are absorbed primarily by the Bank of Japan. Since 1981, open market operations using treasury bills have been undertaken by the Bank of Japan, though the amounts have remained small. Treasury bills with yields equivalent to those of comparable maturities in the bill discount market are placed with brokers in the bill discount market who are free to sell them to commercial banks, securities houses, and other financial institutions.

Although banks remain subject to official interest rate regulation on most deposit categories, they have recently introduced new types of deposit instruments with market-related interest rates to enable them to compete more effectively for funds. These include a two-year deposit, with the interest rate determined by a weighted average of ten-year bond yields (60 percent

[16]Gensaki rates tend to rise in March and September, as companies cooperate with financial institutions to increase deposits for window dressing, and securities firms use Gensaki instruments to adjust their inventory of government bonds at the end of their accounting period.

weight) and the two-year bank deposit rate (40 percent weight), a bank debenture with compound interest, and a deposit whose maturity can be designated by depositors.

Liberalization of Capital Flows - During the past decade, the rules governing Japan's international capital flows have been greatly liberalized, contributing to a significant increase in financial flows between Japan and other countries (Chart 3). However, adverse developments in the balance of payments and wide fluctuations in the exchange rate of the yen during the 1970s at times resulted in a slowdown or a temporary reversal of the trend toward liberalization (Chart 4).

After the first major oil price increases, when the current account deteriorated and the yen depreciated, the authorities took various measures to liberalize capital inflows. In 1973, limits on nonresident stock and bond purchases were abolished, inward direct investments by foreigners in various industries were liberalized, and nonresident acquisition of free yen account balances was eased for certain transactions. In 1974, ceilings on loans from abroad were raised, the issuing of bonds abroad by residents was facilitated, marginal reserves on nonresident free yen accounts were eliminated, and the withholding tax on payments of interest to sovereign investors was removed. Concerned about capital outflows, the Government, at the end of 1973, banned foreign bond issues in Japan, limited residents' foreign exchange holdings, and restricted overseas lending by Japanese banks.

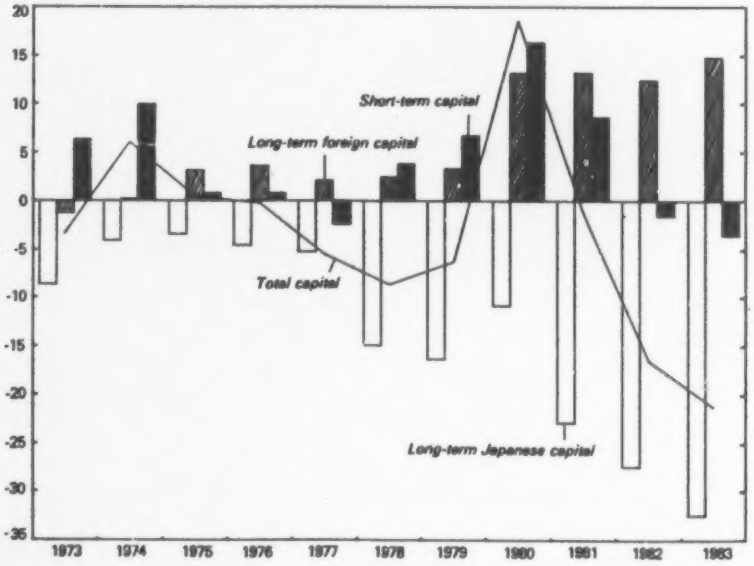
Following the turnaround in the exchange rate during the fourth quarter of 1974 and the first quarter of 1975, the authorities eased restrictions on resident purchases of foreign securities and allowed Samurai bond issues.[17] During 1976-78, with the yen appreciating, most of the measures taken by the authorities were in the direction of liberalizing capital outflows. In 1976, restrictions on resident purchases of foreign securities were eased, and the frequency of Samurai bond issues was increased. In 1977, the Government granted Japanese foreign exchange banks greater freedom to lend abroad, eliminated the approval requirement for outward direct investments, and resumed the private placement of foreign yen bonds with Japanese institutional investors. However, to slow down capital inflows, in 1977 a 50 percent marginal reserve requirement on free yen accounts was enacted. In 1978, marginal reserve requirements on free yen deposits were increased to 100 percent, and nonresidents were prohibited from puchasing Japanese bonds with less than five years' maturity.

Following the second major oil price increases, the current account deteriorated and the yen again depreciated sharply. During this period, the authorities substantially liberalized capital inflows. In 1979, marginal reserves on free yen accounts were eliminated, nonresident access to the Gensaki market was allowed, the ban on short-term impact loans (foreign currency loans to nonbank residents) was ended, and Japanese and foreign banks operating in Japan were authorized to issue yen-denominated negotiable certificates of deposit, which could also be purchased by foreigners. To slow

[17]Long-term bonds denominated in yen and issued by foreign borrowers in Japan through public offerings.

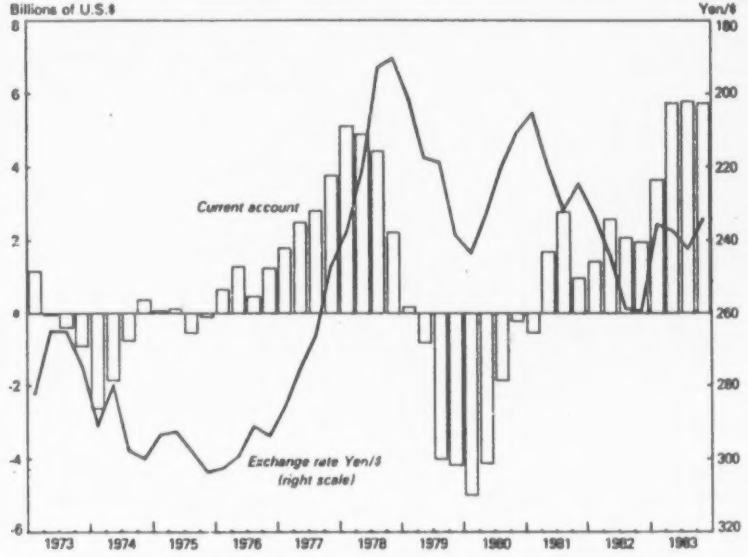
CHART 3. CAPITAL ACCOUNT, 1973–83

(In billions of U.S. dollars)



Source: Bank of Japan, *Balance of Payments Monthly* (Tokyo), various issues.

CHART 4. CURRENT ACCOUNT AND EXCHANGE RATE, 1973–83



Sources: Bank of Japan, *Balance of Payments Monthly* (Tokyo), various issues; and International Monetary Fund, *International Financial Statistics* (Washington), various issues.

down capital outflows, the market for private placement of foreign yen bonds was temporarily closed in late 1979, and banks were asked to be prudent in lending overseas. In the first quarter of 1980, controls on Japanese companies issuing bonds abroad were eased, free yen accounts held by foreign public institutions were exempted from interest rate control, authorized foreign exchange banks were permitted to transfer funds from abroad through their interoffice free yen accounts, and Japanese banks were allowed to make medium- and long-term impact loans. With the turnaround in the exchange rate, loan-by-loan monitoring of foreign lending by Japanese banks was eased during the second half of 1980.

Finally, the liberalization process undertaken during the 1970s led to the passage of the Foreign Exchange and Foreign Trade Control Law in December 1980, which represented a formalization of the principle that all external transactions may be freely carried out unless otherwise specified.[18] In addition to the codification of many of the steps taken in the process of liberalization, the new law significantly affected four types of international transactions: (1) in principle, Japanese banks were allowed to borrow and lend foreign currencies at home and abroad without restriction (but still subject to prudential guidelines); (2) Japanese residents were given unlimited freedom to exchange yen into foreign currencies for deposit with Japanese banks;[19] (3) the scope for foreign portfolio investment in Japan was widened, particularly in equities, with the lifting of the limitation of 25 percent foreign ownership except for a limited list of companies;[20] and (4) Japanese companies were given greater freedom to borrow abroad.

The relationship between the yen rate and the pace of liberalization of capital flows, evident in the 1970s, has not been observed since 1980. Despite the weakening of the yen during most of 1981 and 1982, the authorities generally refrained from imposing restrictions, as they remained committed to continuing the opening up of capital markets. With this aim, in 1981 the authorities lifted the suspension on private placement of bonds by nonresidents imposed in 1979 and relaxed the limits on syndicated loans arranged by Japanese banks. Measures were also taken to encourage inflows, including a reduction of the reserve requirement ratios for foreign currency deposits and a relaxation of restrictions on Japanese banks' subsidiaries regarding the issuance of bonds in foreign markets. In 1982, although securities companies temporarily suspended sales of zero-coupon bonds following a large outflow of funds,[21] capital outflows were generally liberalized despite the continued depreciation

[18]Although, according to the new law, external transactions are generally free, the implementing regulations contain several reporting and prior notice provisions, as well as requirements for approval of some transactions. For details, see Japan Economic Institute, "Capital Market Liberalization in Japan," JEI Report (Washington), No. 10A (March 9, 1984).

[19]Previously, there was a limit of Y3 million.

[20]At present, 11 companies are so designated. The limit of 10 percent remains in effect for a single investor, as an investment of more than 10 percent in a company is considered direct investment and therefore requires approval by the ministries concerned.

[21]The motivation for the suspension of sales of such instruments was presumably related to the tax avoidance aspect of these bonds and to fears that returns promised to investors might not be realized if the markets could not absorb the large sales of these instruments that would be required just prior to maturity to realize the capital gains.

of the yen. Japanese banks were allowed to lend yen long term to borrowers of their choice by removing priority categories on overseas yen lending. Also as part of the liberalization process, yen-dollar swap limits of foreign banks operating in Japan were increased.

During 1983, the authorities took additional measures to liberalize international capital flows. At the same time, to reinforce the Japanese banks' capability to cope with the strains in the international financial system that emerged in the second half of 1982, prudential guidelines on banks' international banking practices were strengthened. City banks' subsidiaries were allowed to issue bonds abroad to increase the parent bank's funding sources for lending abroad.[22] Changes were made in practices relating to yen-denominated foreign bond issues in Japan to increase the flexibility of the issuing procedures and to help accommodate issues of higher denominations and a greater number of borrowers. Euro-yen lending by Japanese banks with one-year or shorter maturity was liberalized completely; such lending was previously limited to transactions related to trade financing.[23] Yen-dollar swap limits for foreign banks operating in Japan were increased by 20 percent, and the limit on the overall foreign exchange position of foreign banks was doubled to $1 million.

Further changes in the liberalization of international financial flows were implemented in April 1984. These included the abolition of the "real demand" principle[24] applied to forward exchange transactions by residents, the introduction of foreign commmercial paper and foreign certificates of deposit in the Japanese market, the elimination of the notification requirement on sales of yen-denominated securities, such as government bonds, by authorized foreign exchange banks to foreigners, and the relaxation of rules for the issuance of Euro-yen bonds, specifically lifting the ban on the issuance of such bonds by residents. Concomitant to the easing of eligibility criteria for residents' Euro-yen issues, those for non-residents' issues of yen bonds in Japan were relaxed, and both Japanese residents and foreigners were allowed to swap non-yen bond issues into yen using either the forward exchange market or currency swap techniques.

Regulatory changes in recent years have virtually freed Japan's financial markets of formal restrictions on the international movement of funds. Although they eased substantially during the past few years, administrative guidelines and reporting requirements remain in effect for certain international movements of funds, as they do in most other countries.

[22]The issuance of bonds by city banks in the domestic market continues to be prohibited.

[23]Euro-yen lending with more than one-year maturity still remains subject to prior notice requirements; in fact, no medium-term Euro-yen loans have been extended by Japanese banks.

[24]The requirement of underlying trade or securities transactions for forward exchange transactions by residents.

Profile of Japanese Financial Markets

With the liberalization of the domestic financial system and exchange controls, capital markets in Japan underwent substantial changes.[25] The evolution of the bond, money, and stock markets in Japan since the beginning of the 1970s is briefly described and documented in this section. A brief description of the evolution of the foreign exchange market is also included.

Bond Market - Japan's bond market has expanded rapidly during the past decade. The rapid increase in government bond issues has been the major factor contributing to the expansion of the market in terms of the volume of issues and transactions (Table 3). In 1969/70, new bond issues in Japanese capital markets amounted to Y4,346 billion, of which public sector bonds accounted for 31 percent. By 1981/82, the amount of new issues had reached Y33,119 billion, a compound annual rate of increase of over 18 percent. The public sector share increased to about 52 percent. The sharpest increase was in issues of central government bonds, whose share in the total more than quadrupled to 39 percent. During the same period, total bonds outstanding increased from Y15,597 billion to Y146,121 billion, with the share of government bonds increasing from less than 16 percent to more than 56 percent.

Since the beginning of the 1970s, developments in the secondary bond market have been even more dramatic. The total amount of bonds traded increased from Y6,500 billion in 1969/70 to Y312,000 billion in 1981/82, and the share of central government bonds in total transactions increased from a mere 5 percent to almost 64 percent. This implies that the trading in central government bonds increased at a compound annual rate of 70 percent during this period.

A significant change in the maturity distribution of long-term bonds outstanding has also been taking place. In 1975, the Government first issued large amounts of deficit-financing bonds with a ten-year maturity. As a result, in the next few years, there will be large amounts of short-term bonds (bonds approaching maturity) in the market. This will expand the opportunities for trading in government securities with very short remaining maturities.

In addition to yen-denominated bonds issued by residents, two kinds of yen-denominated bonds are issued in Japan by foreigners: Samurai bonds issued on the Japanese market through public offerings, and bonds privately placed with Japanese institutional investors. The growth of foreign yen bonds has not been very steady because developments in this market were linked to Japan's balance of payments position and official policy toward capital flows (Table 4). After the oil price increases in 1973-74, the market for foreign yen bonds was closed; the Samurai bond market was reopened after 20 months in July 1975, and private placements were resumed after three and a half years in June 1977. After the oil price increase in 1979, the Government did not ban new public issues of Samurai bonds, although they were depressed because of high interest rates and the volatility of the yen. However, the market for

[25]For a detailed description of Japanese financial markets, see Bronte, op. cit.; and Robert F. Emery, The Japanese Money Market (Lexington, Massachusetts: Lexington Books, 1984).

TABLE 3. BONDS ISSUED, OUTSTANDING AND TRADED, 1969/70–1981/82

(In billions of yen)

	1969/70	1972/73	1974/75	1975/76	1978/79	1979/80	1980/81	1981/82
Total bonds issued	**4,364**	**9,225**	**11,607**	**17,157**	**27,305**	**30,540**	**32,739**	**33,119**
Public sector bonds	1,353	3,543	4,104	7,573	14,598	17,517	18,182	17,075
Central government	*421*	*1,968*	*2,200*	*5,362*	*10,792*	*13,635*	*14,264*	*12,950*
Local government[1]	*82*	*120*	*177*	*311*	*697*	*815*	*729*	*681*
Public corporations	*850*	*1,455*	*1,728*	*1,900*	*3,109*	*3,067*	*3,190*	*3,444*
Private sector bonds	3,011	5,682	7,503	9,584	12,707	13,023	14,557	16,043
Industrial bonds	*495*	*655*	*987*	*1,504*	*1,313*	*1,298*	*994*	*1,269*
Bank debentures	*2,516*	*5,027*	*6,516*	*8,080*	*11,394*	*11,725*	*13,563*	*14,774*
Total bonds outstanding	**15,597**	**26,506**	**36,697**	**47,007**	**89,830**	**108,408**	**128,211**	**146,121**
Public sectors bonds	7,510	13,120	18,860	25,550	59,674	76,109	93,260	107,908
Central government	*2,463*	*5,818*	*9,658*	*14,973*	*42,645*	*56,251*	*70,510*	*82,273*
Local government[1]	*428*	*572*	*757*	*991*	*2,398*	*3,138*	*3,784*	*4,342*
Public corporations	*4,619*	*6,730*	*8,445*	*9,586*	*14,631*	*16,720*	*18,966*	*21,292*
Private sector bonds	8,087	13,386	17,837	21,457	30,156	32,299	34,951	38,213
Industrial bonds	*2,616*	*3,680*	*4,518*	*5,537*	*7,300*	*8,227*	*8,794*	*9,588*
Bank debentures	*5,471*	*9,706*	*13,319*	*15,920*	*22,856*	*24,072*	*26,157*	*28,625*
Total bonds traded[2]	**6,500**	**18,300**	**39,000**	**57,600**	**206,300**	**229,700**	**289,900**	**312,000**
Of which: Central government	320	550	1,800	1,300	69,800	114,100	168,400	199,100

Source: Data provided by the Japanese Ministry of Finance.
[1] Excludes bonds issued by private placement.
[2] Includes over-the-counter transactions.

TABLE 4. ISSUES OF FOREIGN YEN BONDS, 1970–82

(In billions of yen)

Fiscal Years	Samurai Bonds		Private Placements	
	Issues	Amount	Issues	Amount
1970	1	6	—	—
1971	3	33	—	—
1972	6	85	1	11
1973	3	40	6	40
1974	—	—	—	—
1975	2	20	—	—
1976	6	65	—	—
1977	15	296	3	30
1978	29	722	11	105
1979	16	333	6	67
1980	14	261	—	—
1981	28	495	12	118
1982	37	663	30	193

Source: Nomura Securities, *Manual of Securities Statistics* (Tokyo), various issues.

private placements was closed for 16 months, until February 1981. With the liberalization of regulations, there was a significant increase in foreign yen bond issues in the following two years, the level of new issues reaching ten times the level registered a decade ago.

Short-Term Money Markets - Short-term money markets in Japan consist of the call market, the bill discount market, the yen certificate of deposit market, and the Gensaki market. Outstanding balances in the short-term money markets increased from Y2.4 trillion at the end of 1970 to Y18.6 trillion at the end of 1982, a compound annual rate of increase of over 18 percent (Table 5). However, developments in individual markets have been diverse.

At the beginning of 1970, the call market and the relatively small Gensaki market were the only short-term money markets in Japan. Balances in the call market, which averaged less than Y1.5 trillion during 1970-73, amounted on average to Y2.5 trillion in the following five years. After the liberalization of interest rates in 1979, there was some increase in outstanding balances. However, these remained at about Y4.5 trillion in 1980-82. A separate bill discount market, which was established in May 1971, grew rapidly in its first few years, and by 1978 outstanding balances in the bill discount market were almost three times the level of outstanding balances in the call market.[26] Although its growth was slowed by the development of the certificate of deposit market, at the end of 1982 the bill discount market was Japan's largest short-term money market, with outstanding balances exceeding Y5.4 trillion.

Negotiable yen-denominated certificates of deposit were first introduced in May 1979, and secondary trading in these instruments began in April 1982. Even though these certificates were not issued until a few years ago, by the end of 1982 outstanding balances amounted to about one fourth of total balances in Japan's money markets. Foreign interest in these certificates appears to fluctuate with the value of the yen.[27] The Gensaki market expanded steadily in the 1970s. However, with the introduction of negotiable certificates of deposit, transactions in this market slowed. The lifting of restrictions on both nonresident participation and the limit on city banks' debt outstanding in the Gensaki market spurred a revival of the market. Outstanding balances remained at about Y4.4 trillion in 1981 and 1982. The share of foreign investors in purchases in the Gensaki market has increased steadily from 2.5 percent in 1980 to 14.0 percent in 1982.

Stock Market - The growth of the Japanese stock market has been uneven during the past decade. After reaching a record high in 1972, the number of shares traded began to decline after the first large oil price increase in 1973-74 (Table 6). In 1975, the volume of trading was only 62.9 billion shares, less than half that of three years earlier. This trend was reversed in

[26]Short-term bills issued by the Bank of Japan and "accommodation bills" issued by banks are traded in the bill discount market (see Table 17, Appendix).

[27]For example, in mid-1980 foreign purchases amounted to 10 percent of the outstanding issues; the weakening of the yen led to liquidations of these positions, and foreign holdings dropped sharply by the end of the year.

TABLE 5. OUTSTANDING BALANCES IN MONEY MARKETS, 1970–82

(In billions of yen)

End of Year	Call Market	Bill Discount Market	Yen Certificate of Deposit Market	Gensaki Market
1970	1,816.9	—	—	619.0
1971	1,472.3	—	—	882.0
1972	1,048.2	802.5	—	1,224.0
1973	1,226.7	2,447.9	—	1,738.0
1974	2,159.5	4,399.6	—	1,673.0
1975	2,331.6	4,403.3	—	1,835.0
1976	2,567.1	5,091.0	—	2,084.0
1977	2,616.4	6,084.0	—	3,136.2
1978	2,326.0	6,590.2	—	4,206.9
1979	3,472.5	6,326.8	1,819.8	3,960.4
1980	4,133.3	5,738.1	2,357.4	4,506.8
1981	4,698.7	4,015.5	3,290.7	4,481.0
1982	4,493.5	5,412.8	4,342.0	4,303.5

Source: Bank of Japan, *Economic Statistics Annual* (Tokyo, 1982).

TABLE 6. TRADING ON STOCK EXCHANGES, 1970–82[1]

Year	Sales Volume (million shares)	Sales Value (billion yen)
1970	57,099	12,030
1971	81,436	18,851
1972	135,475	28,814
1973	79,361	20,139
1974	65,081	15,933
1975	62,854	18,976
1976	82,597	27,930
1977	85,111	25,527
1978	118,493	38,880
1979	115,594	40,879
1980	118,931	42,161
1981	128,317	58,747
1982	91,240	42,668

Source: Bank of Japan, *Economic Statistics Annual* (Tokyo, 1982).
[1] Includes Tokyo, Nagoya, Osaka, and Kyoto Stock Exchanges.

the following years, as the number of shares traded increased steadily, reaching 128.3 billion shares in 1981. Major factors behind this growth were the shift by Japanese corporations from indirect to direct financing, the increases in inward foreign investment, and the high investment returns on stocks.[28]

Although share issues in Japan did not show a steady trend in the 1970s, there was a shift from new share issues at par toward new share issues on the market (Table 7). In 1970, new issues at market prices accounted for only 20 percent of total domestic equity issues, as companies traditionally issued new equity at par value to existing shareholders or employees of the firm as part of a profit-sharing program or a wage package. New shares issued on the market, which allowed profitable companies access to cheaper sources of funds, rose sharply in the past decade, except for a temporary reversal after the oil price increases in 1973. In 1982, the share of market issues in the total amounted to 82 percent.

Trading on the stock exchanges in Japan increased from Y12.0 trillion in 1970 to Y28.8 trillion in 1972 (see Table 6). However, this unprecedented growth was not long-lived, and, following the sharp increase in oil prices, trading declined to Y15.9 trillion in 1974. In subsequent years, sales increased continuously and reached a record high of Y58.7 trillion in 1981. Because of the low level of trading during the first three quarters of 1982, reflecting the low level of foreign equity purchases, trading in 1982 declined to Y42.7 trillion.

Foreign investment in Japanese securities has also fluctuated substantially (Table 8). Purchases of Japanese stocks by foreigners, which amounted to $2.8 billion in 1972, declined to $0.6 billion in 1974 after the oil price increases. After the oil price increase in 1979, however, foreign interest in Japanese stocks increased sharply, as oil producing countries began to diversify to yen instruments. Further, the Foreign Exchange and Foreign Trade Control Law of 1980 eased investment procedures for foreign investors and lifted ceilings on foreign investments in a specific company.[29] As a result, foreign purchases of stocks, which amounted to less than $5.5 billion in 1979, reached about $25 billion in 1981. As the economic situation of oil producing countries began to deteriorate and the yen continued to depreciate, foreign investments in Japanese stocks declined in 1982. There was a sharp increase in investments in Japanese stocks in 1983,[30] especially in high-technology-related stocks, as Japanese stocks appeared relatively undervalued after the surge in the New York market in late 1982. There was also a substantial increase in purchases of stocks in Japanese industries centered on export sectors in anticipation of global economic recovery.

[28]See Bronte, op. cit., p. 169. The annual average return during 1970-79 was 18.3 percent in Japan, compared with 6.2 percent in the United States.

[29]At present, only when a foreign takeover "would have a major impact on the nation's economy or security" is the purchase of more than 25 percent of a firm's share subject to prior review. The ceiling of 10 percent for a single investor remains in effect.

[30]Net foreign investment in Japanese stocks during January-September 1983 amounted to over $3.8 billion.

TABLE 7. NEW SHARE ISSUES BY TYPE, 1970–82

Year	Share Issues on the Market: Number of issues	Share Issues on the Market: Amount raised (billion yen)	Issues at Par: Number of issues	Issues at Par: Amount raised (billion yen)	Total: Number of issues	Total: Amount raised (billion yen)
1970	171	132.7	282	523.5	453	656.2
1971	121	76.7	201	431.3	322	508.0
1972	239	637.7	177	361.1	416	998.8
1973	206	519.9	172	349.6	378	869.5
1974	167	261.8	188	246.0	355	507.8
1975	87	212.4	140	757.4	227	969.8
1976	160	484.9	95	176.0	255	660.9
1977	196	565.5	133	307.5	329	873.0
1978	162	530.4	76	316.4	238	846.8
1979	189	580.2	67	313.3	256	893.5
1980	177	842.3	41	156.0	218	998.3
1981	210	1,331.0	70	516.9	280	1,847.9
1982	174	1,048.0	148	236.5	222	1,284.5

Source: Tokyo Stock Exchange.

TABLE 8. FOREIGN INVESTMENT IN JAPANESE STOCKS, 1970–82

(In millions of U.S. dollars)

Year	Purchases	Sales	Net
1970	1,020	865	155
1971	1,579	1,149	430
1972	2,762	2,410	352
1973	1,699	2,337	−638
1974	605	1,738	−1,133
1975	2,064	1,474	590
1976	2,960	3,068	−109
1977	2,671	3,446	−775
1978	4,830	5,635	−804
1979	5,486	6,171	−685
1980	12,171	7,183	4,988
1981	24,972	21,450	3,523
1982	17,276	15,664	1,612

Source: Data provided by the Japanese Ministry of Finance.

Foreign Exchange Market - The Tokyo foreign exchange market expanded rapidly during the past decade. Trading volume, which totaled $11.8 billion in 1970, was about $1,213.6 billion in 1982 (Table 9). Several factors were influential in this growth. Trade transactions increased sharply; the internationalization of Japanese companies led to increased yen lending to finance investments and to profits being remitted back in U.S. dollars; favorable developments in the economy increased the demand for yen as an investment medium, thus increasing capital flows into Japan; the liberalization of Japanese markets increased nonresident investment opportunities in yen-denominated assets; with the liberalization of access of Japanese companies to markets abroad for funding, conversion of these funds into yen in Tokyo increased; again with the liberalization of exchange controls, Japanese portfolio managers and corporate treasurers began to invest abroad; and brokerage commissions were reduced on several occasions, bringing them in line with charges in other countries.[31]

To complement the foreign exchange market, a dollar call market was created in 1972 which allows banks to settle their foreign exchange transactions in Tokyo instead of abroad and to invest their foreign exchange positions locally. Transactions in the Tokyo dollar market remain restricted to resident foreign exchange banks. Nevertheless, the volume of transactions in this market has increased markedly in the past few years (Table 10), owing largely to sharp fluctuations in dollar interest rates, which made banks more concerned about time lags; the foreign exchange law of 1980, which allowed banks to increase their domestic dollar liabilities; and reductions in brokers' commissions. The dollar call market is still relatively small, with a daily turnover of $1.3 billion and an outstanding balance of $32.1 billion in 1982, less than 5 percent the size of the Euromarket.

[31]The commission for spot dollar transactions, the most common form of dealing, is Y600,000 per $1 million for each party to a transaction.

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TABLE 9. VOLUME OF SPOT, FORWARD, AND SWAP TRANSACTIONS IN TOKYO FOREIGN EXCHANGE MARKET, 1970–82

Year	Turnover (million U.S. dollars)			
	Spot	Forward	Swap[1]	Total
1970	4,915	4,237	2,604	11,756
1971	20,537	5,398	3,423	29,358
1972	13,027	11,241	4,872	29,141
1973	20,194	18,175	8,558	45,927
1974	18,891	24,305	16,115	59,311
1975	22,919	25,960	24,551	73,430
1976	34,972	28,616	34,924	98,512
1977	62,305	24,611	60,363	147,279
1978	117,890	34,767	128,886	281,543
1979	172,210	51,751	221,042	445,003
1980	211,844	66,782	300,593	579,219
1981	296,432	77,696	527,948	902,076
1982	365,260	63,283	785,034	1,213,577

Source: Data provided by the Bank of Japan.
[1] A simultaneous purchase and resale, or sale and repurchase, of currency at a later date.

TABLE 10. TOKYO DOLLAR CALL MARKET, 1972–82

(In millions of U.S. dollars)

Year	Turnover	Outstanding Balance
1972	5,574	352
1973	18,921	718
1974	32,979	1,282
1975	41,779	1,300
1976	45,171	1,230
1977	53,795	1,350
1978	69,241	2,701
1979	125,909	4,941
1980	189,992	11,564
1981	276,207	23,834
1982	480,451	32,122

Source: Data provided by the Bank of Japan.